

Title (en)

PROCESS AND PLANT FOR PURIFYING WASTE GASES FROM ALUMINIUM MELTING PROCESSES

Publication

EP 0338451 A3 19910206 (DE)

Application

EP 89106728 A 19890414

Priority

DE 3813365 A 19880421

Abstract (en)

[origin: EP0338451A2] Waste gases from aluminium smelting processes having a melt phase and a chlorination phase in which chlorine gas is injected into the melt are purified by cooling them, subsequently neutralising them in a main waste gas circuit in a reactor using calcium hydroxide powder and then passing them through a filter for removal of solid components. To reduce the calcium hydroxide consumption and the production of solids unsuitable for landfill, it is arranged that the hot waste gases are passed directly from the chlorination phase into a bypass circuit and via at least one scrubbing step, in which chlorine and chloride residues are scrubbed from the waste gas, and that the purified waste gas is returned to the main waste gas circuit, while the acidic waste water from the scrubbing step is chemically neutralised, and the neutralised water is evaporated by introduction into the main waste gas circuit prior to the reactor, the resulting solids being separated from the waste gas at the filters.

IPC 1-7

B01D 53/34

IPC 8 full level

B01D 53/68 (2006.01)

CPC (source: EP)

B01D 53/68 (2013.01)

Citation (search report)

- [A] GB 2146261 A 19850417 - MITSUBISHI HEAVY IND LTD
- [A] EP 0238811 A1 19870930 - BABCOCK ANLAGEN AG [DE]
- [A] DE 2215065 B2 19740207
- [A] ERZMETALL vol. 33, no. 10, Oktober 1980, Weinheim, Deutschland Seiten 483 - 485; L.Leder: "Reinigung von Al-Schmelzen im Huettenwerk Voerde - Verfahrens- und Kostenvergleich"

Cited by

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Designated contracting state (EPC)

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